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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,374	08/08/2007	Torsten Ziser	CH-8232/RC-235	2733
7590 Jennifer R. Seng Lanxess Corporation Law & Intellectual Property Department 111 RIDC Park West Drive Pittsburgh, PA 15275-1112			EXAMINER WANG, CHUN CHENG	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 04/28/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/573,374

**Applicant(s)**

ZISER ET AL.

**Examiner**

Chun-Cheng Wang

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 9-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 02/18/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to the Amendment filed on 08/26/2008. Claims 7-8 are cancelled. Claims 1-6 and 9-39 are now pending.
2. The objections and rejections not addressed below are deemed withdrawn.
3. The text of those sections of Title 35, U.S. Code not included in this section can be found in a prior Office Action.

***Co-pending Double Patenting***

4. The co-pending double patenting is withdrawn due to the abandonment of Application No. 10/947876.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites the limitation "non-crosslinkable medium (A)" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6, 9-19, 21-23, 25-33 and 35-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Obrecht et al. (US 6399706).

Claims 1-3, 18 and 37: Obrecht et al. disclose rubber compositions comprising natural rubber, non-hydroxyl-modified SBR microgel having a diameter of  $d_{10} = 50$  nm,  $d_{50} = 56$  nm and  $d_{90} = 60$  nm (Example 1, column 7, lines 53-67 and column 8, lines 1-14); N-isopropyl-N'-phenyl-p-phenylenediamine, 2,2,4-trimethyl-1,2-dihydroquinoline and stearic acid (read on organic media having a viscosity of less than 200 mPas at a temperature of 120°C (columns 9-10, Example 4)).

Claims 4-6: Obrecht et al. disclose the non-hydroxyl-modified SBR microgel having a diameter of  $d_{10} = 50$  nm,  $d_{50} = 56$  nm and  $d_{90} = 60$  nm (read on approximately spherical geometry), which has diameter deviation of 20% ( $= (60-50)/50 \times 100$ ).

Claims 9-13 and 25-28: Obrecht et al. disclose the non-modified microgels are crosslinked with dicumyl peroxide by heat, they are insoluble, and can be swollen toluene (column 3, lines 5-15). The swelling index of the microgels in toluene is 5.4. The gel content is 97.5% and the glass transition temperature rose to -26.5°C (Example 1, column 7, lines 53-67 and column 8, lines 1-14).

Claims 14-17: Obrecht et al. disclose SBR microgel modified with hydroxyl group, by grafting of the gel with hydroxymethyl methacrylate, having a styrene content of 22% by weight crosslinked with dicumyl peroxide (Example 2, column 8, lines 38-67).

Claims 18-19 and 21: Obrecht et al. disclose rubber compositions comprising 70 % of non-hydroxyl-modified SBR microgel, N-isopropyl-N'-phenyl-p-phenylenediamine, 2,2,4-

trimethyl-1,2-dihydroquinoline, stearic acid (read on organic media) and zinc oxide (columns 9-10, Example 4).

Claims 22-23: Obrecht et al. disclose rubber compounds can be produced in various ways. Examples of processing units are rolls, kneaders or mixer extruders (column 7, lines 1-19).

Claims 29-33, 35-36 and 38-39: Obrecht et al. disclose compounds comprising microgel and natural rubber; the process of mixing components (columns 9-10, Example 4); and production of cable sheathing, hoses, drive belts, conveyor belts, roll claddings, tires, particularly tire treads, shoe soles, sealing rings and damping elements, as well as diaphragms (column 7, lines 20-29). Examples of processing units are rolls, kneaders or mixer extruders (column 7, lines 1-19).

***Claim Rejections - 35 USC § 102/103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 24 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Obrecht et al. (US 6399706).

The disclosure of Obrecht et al. is adequately set forth in paragraph 8 and is incorporated herein by reference. However, Obrecht et al. is silent on the specific composition viscosity by cone-plate measuring system.

Since Obrecht et al. disclose substantial identical composition, one ordinary skilled in the art would anticipate the composition has a viscosity of 2 mPas up to 50,000,000 mPas at a speed

of  $5 \text{ s}^{-1}$ , determined with a cone-plate measuring system in accordance with DIN 53018 at  $20^\circ\text{C}$ .

“When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

11. Claims 1-4, 12, 14, 16, 18-24, 27-28, 30 and 33-37 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamamoto et al. (US 6548454).

Claims 1-4, 24 and 36-37: Yamamoto et al. disclose lubricant composition prepared by mixing the ultrafine particulate organic material and base oil. The ultrafine particulate organic material diameter of 20 nm to  $1 \mu\text{m}$  (column 16, lines 47-60) is an intermolecular crosslinked high molecular compound having an internally three-dimensional network, i.e., so-called microgel, which is shape in spherical form (column 15, lines 14-62). Since the lubricant compositions used are liquids having a low viscosity (column 31, lines 28-37), one would anticipated the viscosity of the oils have viscosity lower than 200 mPas at a temperature of  $120^\circ\text{C}$  and the composition has a viscosity of 2 mPas up to 50,000,000 mPas at a speed of  $5 \text{ s}^{-1}$ , determined with a cone-plate measuring system in accordance with DIN 53018 at  $20^\circ\text{C}$ .

“When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

Claims 12, 14 and 18: Yamamoto et al. disclose lubricant composition prepared by mixing the ultrafine particulate organic material and base oil. The ultrafine particulate organic material diameter of 20 nm to  $1 \mu\text{m}$  (column 16, lines 47-60) is an intermolecular crosslinked

high molecular compound having an internally three-dimensional network, i.e., so-called microgel, which is shape in spherical form (column 15, lines 14-62). The ultrafine particulate polymer is produced by emulsion polymerization (column 14, lines 63-67). The lubricant composition comprising base oil composed of liquid fluorinated polymer oil (column 13, lines 65-67 and column 14, lines 6).

Claims 19-21: Yamamoto et al. disclose lubricant composition contains ultrafine particulate inorganic material (read on filler), at least one of the ultrafine particulate organic material in an amount of 1 to 45% by weight and base oil in an amount of 55 to 95% by weight (column 2, lines 56-67 and column 3, lines 1-37).

Claims 16, 27-28 and 30: Yamamoto et al. disclose the ultrafine particulate organic material include polymer or copolymer of acrylic acid ester such as ethyl methacrylate, glycidyl methacrylate, cyclohexyl methacrylate, n-butyl methacrylate, hexyl methacrylate and methyl methacrylate, styrene polymer, styrene-acryl copolymer, and styrene-methacrylic acid ester copolymer (column 15, lines 2-13).

Claims 33-35 and 37: Yamamoto et al. disclose lubricant composition prepared by mixing the ultrafine particulate organic material (e.g. microgel) and base oil (e.g. liquid fluorinated polymer oil). The ultrafine particulate organic material diameter of 20 nm to 1  $\mu$ m (column 16, lines 47-60) is an intermolecular crosslinked high molecular compound having an internally three-dimensional network, i.e., so-called microgel, which is shape in spherical form (column 15, lines 14-62).

Claims 22-23: Yamamoto et al. disclose identical or substantially identical in structure or composition. Claims 22-23 are the manufacturing steps for the composition claimed, which was cited through instant claims and were rejected as previously discussed.

***Response to Arguments***

12. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection (see paragraphs 8 and 12).

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Cheng Wang whose telephone number is (571)270-5459. The examiner can normally be reached on Monday to Friday w/alternate Friday off.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/  
Primary Examiner, Art Unit 1796

/Chun-Cheng Wang/  
Examiner, Art Unit 1796

/CCW/